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United States Environmental Protection Agency, Region IX

Air & Toxics Division

Supplemental Technical Support Document

for

U.S. Environmental Protection Agency

Federal Implementation Plan

Gasoline Transfer and Dispensing

40 CFR 52.2961(j)

February 12, 1995

Rule Name: Gasoline Transfer and Dispensing 40 CFR 52.2961(j)
Notice of Proposed Rulemaking (NPRM) published May 5, 1994 - 59 FR 23312.

This technical support document (TSD) is intended to supplement the TSD written for the proposal of the Gasoline Transfer and Dispensing rule included in the Federal Implementation Plan (FIP) for the Sacramento, South Coast, and Ventura nonattainment areas.

Rule Summary

This rule controls VOC emissions from gasoline service stations in the FIP areas by improving existing vapor recovery systems and phasing out older, less efficient system components. Required improvements to phase I systems include pressure-vacuum relief valves on stationary tank open vent pipes, coaxial system restrictions, and CARB certified spill boxes. Phase II requirements include internal vapor check valves for balance system nozzles, proper tubing between the riser and dispenser cabinet, certified insertion interlock mechanisms for bellows-equipped nozzles, and phase-out of dual hose systems. In order to minimize the cost impacts of this measure, most of the required improvements are to be made during regularly scheduled maintenance.

Changes to Proposal

40 CFR 52.2961(j) is being promulgated generally as proposed. Significant modifications reflected in the final rule are listed below.

1. Implementation dates for control requirements have been changed to May 15, 1997.
2. The internal vapor check valve requirement in section (3)(ii)(C) has been postponed until May 15, 1997 to allow for phase-out of remote vapor check valve systems.
3. The phrase "or operate" has been deleted from the coaxial hose requirement in section (3)(ii)(F).
4. Section (3)(ii)(H) has been deleted. Facilities will need to come into compliance by May 15, 1997 pursuant to section (5), or the date specified in the individual provisions.
5. A compliance date of May 15, 1997 has been added to the pump-out requirement in section (3)(iii)(B) in order to make this provision coincide with the phase I compliance date, and to address a commenter's concern regarding abandoned tanks and pump-out for phase I installation.
6. The compliance provision for new/altered facilities in section (5)(ii) has been deleted since all existing facilities will need to be in compliance by May 15,

1997. This revision also addresses a commenter's concern that replacement of normal maintenance items may qualify as an "alteration" thereby requiring the entire facility to demonstrate compliance upon replacement prior to the 1997 compliance date.

7. The recordkeeping language in section (7) has been revised to allow records more than two years old to be kept off-site as long as they are accessible within 24 hours. Also, the record retention time has been reduced to three years.
8. The references to CARB test procedures have been removed because these procedures are currently in draft form and have not been adopted yet. The methods are expected to be adopted in the near future, and districts should be aware of their availability when revising district rules.

Emissions Reductions

EPA has revised the reduction estimates so that they are consistent with the estimates used in the 1994 attainment plans adopted in each area. The revised estimates are now approximately 0.3 tpd in Sacramento, 0.2 in Ventura, and 5.6 tpd in the South Coast.

Costs

The cost estimates have not changed from those in the original TSD used for the proposal.

Summary of Comments

EPA received many comments on the proposed measure. Commenters include Ventura County Air Pollution Control District, Yolo-Solano Air Quality Management District, County of El Dorado Environmental Management Department, Western States Petroleum Association, Mobile Oil Corporation, Chevron, and Texaco. Significant comments and responses are listed below according to topic.

Clarifications

Comment: Proposed §52.2961(j)(3)(i)(B) should be simplified to read, "Such tank is equipped with a CARB certified vapor recovery system."

Response: This provision will be revised to read, "Such tank is equipped

with a CARB certified vapor recovery system which is maintained and operated according to the manufacturer's specifications."

Comment: Proposed (j)(3)(ii)(D) should be clarified to read, "If flexible tubing is used for this connection, the material shall be listed [specify where] for use with gasoline and shall be equipped with a clearly visible bonding strap."

Response: The second sentence of this provision will be revised as suggested above.

Comment: The definition of "insertion interlock" requires a certified mechanism. Therefore, (j)(3)(ii)(E) should specify, "with an insertion interlock," instead of, "with a certified insertion interlock mechanism."

Response: EPA agrees and will incorporate the above revision.

Comment: 52.2961(j)(3)(i)(H) which refers to spill boxes is incomplete -- it is missing the operative requirements.

Response: EPA agrees and will revise this provision.

Comment: 52.2961(j)(3)(iii)(D)(2) refers to the posting of the "SCAQMD" toll-free telephone number -- this should be revised to require posting of the local District number.

Response: The specified provision does require the appropriate district number.

Comment: The definition of "alteration" should not include normal maintenance items such as nozzles and hoses, which typically need replacement every 6 months to 2 years due to wear and tear. These replacements should not be considered "alterations".

Response: The definition of "alteration" only includes normal maintenance items if they are to be replaced with components having different characteristics from the existing or original equipment. As such, reverification testing and other provisions should not be invoked by normal maintenance.

Specific Provisions

Comment: The proposed requirement for vapor collection during tank pump-out should explicitly address tanks being abandoned in place or pumped-out for Phase I installation.

Response: The commenter's concern about tanks being abandoned in-place or pumped-out for phase I installation can be addressed by making the compliance date of this provision effective on or after the compliance date for the phase I requirements.

Comment: Section (ii) F&G: Stage II systems equipped with dual hoses will need to change to coaxial-hose systems within one year of final rule publication. Dual-hose systems should be allowed to remain in service. The FIP requirement does not reduce emissions, and all systems are certified at 95% efficiency. Dual-hose systems are typically located at older, lower-volume stations, and it would be a financial hardship for these stations to change station hardware.

Response: The original intent was to allow dual hose systems to remain in service until the owner/operator replaces the hoses. The language will be clarified to reflect this intent. It is expected that even without this provision, dual hose systems will be phased out through attrition within the next two years because the systems are no longer being manufactured.

Comment: The FIP requirement for liquid removal devices in section (ii)(G) should not apply to stations equipped with dual-hose stage II systems.

Response: This provision does not require all phase II systems to be equipped with a liquid removal device; it simply clarifies the existing specifications for liquid removal devices. The requirement applies to all liquid removal devices required by CARB Executive Orders - if a liquid removal device is required by the Executive Order, then it should meet the specification in this provision; if no device is required, then this provision does not apply.

Comment: (j)(3)(ii)(C) prohibits installation of balance system vapor recovery nozzles unless the vapor check valve is in the nozzle. This is highly impractical as most locations have vapor check valves located on the dispenser. Modifying several dispensers would not be cost-effective and the weight of the nozzle with a vapor check valve could be difficult to handle for customers.

Response: Newer nozzles are available which can accommodate the vapor check valve without excessive weight. In addition, remote vapor check valve systems are no longer manufactured and replacement parts will soon be unavailable, thereby requiring system replacement. The language in this provision will be clarified to allow owners/operators a longer phase-out time.

Administrative (Testing, recordkeeping, etc.)

Comment: The sign requirements for nozzle operating instructions, air quality district phone number, and toxic warning should be deleted. The sign requirements are redundant and unnecessary since all stations are presently required to post these signs as a matter of state or local regulations.

Response: Although EPA understands that these signs are already required, the provisions are being kept in the FIP rule in order to provide a complete regulation from which districts may model their local rules. The reason for including the sign requirements is not to be redundant, but to ensure that the requirements are not overlooked simply because they do not appear in the FIP rule. Furthermore, since districts already have these requirements included in their local rules, no changes would be necessary in most cases.

Comment: Testing of equipment is expensive due to cost of the test and lost sales during pre-test and actual test. The pressure decay test for vapor balance systems is not necessary. The liquid blockage reverification test for balance systems is not necessary unless plumbing has been altered since initial installation. Reverification pressure testing for vacuum-assist systems should not be required more often than once every 5 years.

Response: EPA continues to believe that periodic reverification testing is necessary, and that static pressure leak testing is needed more frequently than once every 5 years. Static pressure leak tests for vacuum-assist systems are already required on an annual basis through the CARB Executive Orders. Reverification testing will remain once every year for static pressure leak tests of vacuum-assist systems, every two years for static pressure leak tests of balance systems, and every 5 years for the liquid blockage test.

Comment: Recordkeeping requirements in section (j)(3)(iii)(I)(7) should be revised to allow records to be maintained at a central location off-site where maintenance/contracting is conducted. EPA could require that they are accessible within 24 to 48 hours after request by the Agency.

Response: Records for the most recent 2 years must be kept on-site, while any older records must be accessible within 24 hours. In addition, the record retention time is being reduced to three

years rather than five years.

Exemptions

Comment: The exemption for "implements of husbandry" should be expanded to cover other agricultural activity.

Response: As written, the exemption for "implements of husbandry" is consistent with federal policy on this issue. Federal guidance limits this exemption to tanks with a capacity less than 550 gallons and equipped with a submerged fill pipe.

Comment: The FIP should exempt small users to avoid unnecessary long trips to a service station and/or increased use of five gallon containers.

Response: EPA understands that the rule requirements may not be cost-effective for certain small users. However, there exists a large potential for emission reductions through the elimination of many exemptions contained in current district rules. Districts and sources are still welcome to make a cost-effectiveness demonstration to justify an exemption on a case-by-case basis.

